

M.P.E.P. Section 2113) where an objection to product-by-process claims was raised since the end product was considered to be the same as the prior art.

Applicant respectfully notes that M.P.E.P. Section 2173.05(P) specifically provides that "a product-by-process claim, which is a product claim that defines the claimed product in terms of the process by which it is made, is proper" (citations omitted), and that a claim "may contain a reference to the process in which it is intended to be used without being objectionable under 35 U.S.C. §112, second paragraph, *so long as it is clear that the claim is directed to the product and not the process* (emphasis supplied). Applicant's invention concerns a product which can be achieved through hydroentanglement of a precursor web comprising polyester fibers, followed by saturation application of a substantially uniformly applied pre-dyed finish to achieve claimed levels of: (1) abrasion resistance; (2) combined drape; and (3) combined bend value. Notably, the drape value is specifically recited in terms of fabric weight, while the claimed bend value is specifically set forth in terms of fabric thickness, thus setting forth a combination of fabric properties which can be achieved within the claimed 2.0-6.0 ounces per square yard basis weight of the present fabric.

In order to clarify the language of dependent claims 13 and 14, claim 13 has been revised to specify that the precursor web comprises layers of *said polyester fibers*, that is, the polyester fibers specifically recited in claim 12. Similarly, claim 14 has been revised to specify that the recited precursor web comprises layers of *said* polyester fibers, and layers of nylon fibers.

In the Action, the Examiner has maintained his rejection of the pending claims under 35 U.S.C. §103, with reliance upon U.S. Patent No. 5,874,159, to Cruise et al., No. 5,098,764, to Drelich, et al., U.S. Patent No. 3,966,406, to Namiki et al., and newly cited U.S.

Patent No. 5,266,354, to Tohyama et al. However, it is respectfully maintained that applicant's claimed fabric is clearly patentably distinct from these references, even when combined, and accordingly, the Examiner's rejection is respectfully traversed.

In the Action, the Examiner acknowledges that Cruise is silent about the use of an image transfer device to form an imaged, nonwoven fabric, dyeing and pre-dye finish or coating. Applicant must respectfully add that Cruise is completely silent as to achieving the claimed fabric characteristics, including abrasion resistance, drape, and bend values.

Applicant has previously noted what are believed to be the clear shortcomings in the teachings of Cruise et al. Suffice to say, Cruise et al. specifically contemplates the provision of binder at *discrete globule locations*, with *isolation* of the binder globules *between the fabric layers and away from the fabric surface*. As such, the principal reference relied upon by the Examiner cannot exhibit the same level of abrasion resistance as specifically claimed, and clearly would not teach one skilled in the art that its teachings would be particularly relevant at arriving at the present invention. In absence of such, the disclosure of the present application appears to be the principal basis for combining the diverse teachings of the various references, including Cruise et al.

The applicant has previously acknowledges that Drelich et al. is directed to a three-dimensional image transfer device, but clearly does not overcome the deficiencies in the teachings of the principal Cruise et al. reference. The Namiki reference has been cited by the Examiner for its teachings relating to jet dyeing, but again, this reference, like all of the cited art, fails to teach or suggest how to achieve a nonwoven fabric which exhibits the properties necessary for applications such as apparel and the like.

The Examiner has newly relied upon the Tohyama reference, which the Examiner notes describes a coated fabric of polyester fiber. The Examiner states that it would be obvious to combine the diverse teachings of the cited references, "with the coating of Tohyama . . . with the exception that improved fabric properties of image and pattern appearance as well as free from dye irregularities.

Applicant must respectfully submit that this is simply reading beyond the teachings of Tohyama, yet this reference is critical to the Examiner's rejection, since none of the other three references contemplate saturation coating of a nonwoven fabric, as claimed, to achieve abrasion resistance, drape values, and bend values, as claimed.

Tohyama et al. specifically states that it "relates to a coated fabric of a polyester fiber exhibiting no staining caused by migration of a dispersed dye and a method for preparation thereof" (see Abstract). Tohyama contemplates that this is achieved by application of a resin of fine inorganic particles, having fine pores. Applicants' study of Tohyama shows *no recognition* of steps to be taken to achieve levels of abrasions resistance, drape value, and bend value, as claimed, to permit use of the fabric for apparel and like applications.

In the Action, the Examiner has stated that his position is "that polyester fabric layers are described by Cruise and the properties of abrasion resistance are noted, but since the claims set forth the physical characteristics desired in the article, and no specific composition of polyester which would meet those characteristics of the claims are vague, indefinite, and functional, since they cover any conceivable combination of ingredients or components, either presently existing or which may be discovered. Applicants must respectfully disagree. A study of applicants' application shows that *very specific* examples are set forth describing in detail the specific types of fibers, and finish compositions, which are employed for achieving

a nonwoven fabric exhibiting the claimed physical characteristics. These physical characteristics are tested in accordance with well-established industry protocols, as would be familiar to those skilled in the art.

As specifically provided by M.P.E.P. Section 2112:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inference of that result or characteristic, *In Re Rijckaert* (citations omitted; emphasis in original).

In providing guidance for evaluating patentability, the M.P.E.P. goes on to state:

To establish inherence, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present and the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities, the mere fact that a certain thing may result from a given set of circumstances is not sufficient'. *In Re Robertson* (citations omitted).

Applicant must respectfully maintain that given the standard for examination, the combined teachings of the cited references *do not* teach or suggest applicants' nonwoven fabric, and resultant properties, as claimed. *None of the cited references* address formation of a nonwoven fabric comprising polyester fibers which exhibits the claimed level of abrasion resistance, as well as drape and bend values as claimed. In the Action, it is understood that the Examiner has relied upon the newly cited Tohyama reference to overcome the deficiencies in the teachings of Cruise et al., Drelich et al., and Namiki. Yet, as noted, Tohyama specifically contemplates formulation of a treatment for enhancing dyeing by application of fine inorganic particles having fine pores. It is respectfully maintained that it would not be at all evident to one skilled in the art that the teachings of this reference, when combined with the other cited art, would achieve a product as claimed.

In the Action, the Examiner has stated that "the claims are vague, indefinite, and functional, since they cover any conceivable combination of ingredients or components either presently existing or which may be discovered in the future". Applicant must respectfully take great exception to this characterization of his claims. Great care has been taken in the present application to set forth a number of very specific examples for practice of the present invention, including specific recitation of the commercial fibers employed, and specific formulation of the pre-dye finish composition. Applicant then specifically recites the structural characteristics of fabrics which can be formed in accordance with the present invention. It is respectfully maintained that there is nothing "vague" or "indefinite" about applicants' claims. Those skilled in the art will recognize that formation of fabrics in accordance with the specific examples, or variations thereof, which achieve the claimed physical properties, fall within the scope of applicant's claims. This is hardly coverage of "any conceivable combination" as stated by the Examiner in the Action.

Applicant has identified above what are believed to be the clear shortcomings in the teachings of the various prior art references relied upon by the Examiner. Applicant must respectfully note that it appears that the references are being combined with the benefit of applicant's own disclosure, in light of the diverse teachings of the references. As specifically provided in M.P.E.P. Section 2143.01, "the prior art must suggest the desirability of the claimed invention". There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teaching of the prior, and the knowledge of the person of ordinary skill in the art (citation omitted) *The level of skill in the art cannot be relied upon to provide the suggestion to combine references* (citation omitted).

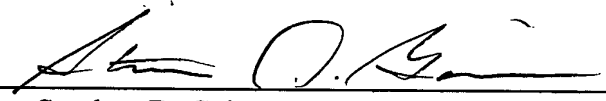
Several other key admonitions of the M.P.E.P. are respectfully noted. "Where the teachings of the prior art conflict, the Examiner must weigh the suggestive power of each reference." In the present rejection, Cruise et al. *teaches away* from uniform, saturation application of a pre-dye finish. In this regard, the Examiner relied upon newly cited Tohyama et al., yet this reference concerns application of fine porous particles for enhancing dye retention; there are no teachings of enhancing abrasion resistance, drape, or bend, and thus, no suggestion for combining its teachings with the other references. As further noted in the M.P.E.P., the "fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness", and the "fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient to establish *prima facie* obviousness".

As further noted in M.P.E.P. Section 2143.02, "obviousness requires only a reasonable expectation of success". In the present case, there is *no reasonable expectation of success*, since the references relied upon *do not teach abrasion resistance*.

Finally, with reference to *In Re Thorpe*, cited by the Examiner, and discussed in M.P.E.P. Section 2113, applicant notes this M.P.E.P. section specifically provides that the burden shifts to applicant to come forward with evidence establishing an unobvious difference only when "the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art." Applicant must respectfully maintain that such has not been established by the cited references. The teachings of the references are diverse. There is *no teaching in the references of the claimed physical properties*. Thus, it is respectfully maintained that a rejection of the pending claims based upon the cited prior art should be withdrawn.

In view of the foregoing, allowance of claims 12-14, and 16-22 is believed to be in order and is respectfully solicited. Should the Examiner wish to speak with applicant's attorneys, they may be reached at the number indicated below.

Respectfully submitted,

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12. A durable nonwoven fabric, comprising:
- a) a precursor web comprising polyester fibers;
  - b) said precursor web being imaged and patterned by hydroentanglement on a three-dimensional image transfer device to form a nonwoven fabric;
  - c) said nonwoven fabric receiving a substantially uniform, saturation application of a pre-dye finish followed by a curing step, said finish being formulated and applied in a sufficient quantity to enhance abrasion resistance properties of said nonwoven fabric;
  - d) dyeing of said nonwoven fabric;
  - e) the resulting nonwoven fabric exhibiting a final basis weight of between about 2.0 ounces and 6.0 ounces, a Martindale Abrasion Value of at least 50,000 cycles, a combined drape value of less than 2.45 grams force per gram fabric weight and a combined bend value of less than 0.42 milligram-centimeter per mil thickness.
13. A durable nonwoven fabric as in claim 12, said precursor web comprising layers of said polyester fibers.
14. A durable nonwoven fabric as in claim 12, said precursor web comprising layers of said polyester fibers and layers of nylon fibers.
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